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New Species of Diptera from North Carolina.

By C. S. BRIMLEY, Entomological Division, North Carolina Department of Agriculture, Raleigh, N. C.

Chilosia swannanoa n. sp. (Syrphidae).

♂.—Eyes hairy; facial tubercle large and prominent; hind tibia with a decided emargination on posterior side near apex; third antennal joint longer than broad; face bare.

Black, the third antennal joint dark brown, the legs dark brown, with the following yellow or yellowish, apices of all femora, front tibiae, base and apex of middle and hind tibiae, and first two joints of four anterior tarsi; hind tarsi wholly dusky. All tibiae and tarsi covered with short fulvous pubescence which tends to obscure the ground color. Pile of body rather plentiful, whitish, except on mesonotum, where it is nearly or quite black, and on frontal lunule, where rather long black hairs are mixed with whitish ones; pleura with whitish pile. There are also black bristly hairs above bases of wings and on sides of scutellum, which latter has also a fringe of white hairs on the posterior margin.

Wings pale sooty, a little more yellowish at base and with stigma yellowish. Calypteres whitish, halteres dark at tip.

Length 9 mm., wing 7 mm.

Type, one male collected by myself at Swannanoa, North Carolina, on September 5, 1924.

Runs in Shannon's key to the genus (Insec. Inscit. Men.,-X-127 [1922]) to *florella,* but has the wings pale fuscous, and the antennae and pile on mesonotum dark.

Odontomerus dorotheae n. sp. (Trypetidae).

Honey yellow, with an oval black spot on each side of scutellum, the apex of abdomen also blackish.

Front broader than either eye, narrowed gradually to opposite antennal base, the face widening below antennae, so that the face and front together are rather broadly hour-glass-shaped. Antennae wholly yellow, the third joint twice as long as broad, rounded at tip; arista long, black, short plumose. One orbital bristle, one vertical and one post vertical.

Thorax with two bristles just before base of wing, one above the same and two pre-scutellars, and one on mesopleura. Scutellum with a pair of apicals. All the femora with spines, there being about four stout spines on the front femur, four on the middle and nine on the hind femur.

Wings yellowish, more so at base, with an apical dusky spot centering on apex of third vein and extending posteriorly to apex of fourth vein and anteriorly about half-way to apex of second; the small and hind cross-veins are also clouded and there is a narrow dusky crossband extending from the fifth vein across the junction of second and third veins to, but not across, the first vein. The veins appear bare under a hand lens, but are microscopically hairy. The anal cell is rounded posteriorly.

Abdomen rather long and narrow, narrower than thorax, the first segment much narrowed at base.

Length 7 mm., wing 6 mm.

Type, a female, taken at Raleigh, North Carolina, August 11, 1923, paratype female, Raleigh, June 11, 1924.

Neuroctena ruthae n. sp. (Sciomyzidae).

Head about as in Cresson's figure of *simplex* (Trans. Amer. Ent. Soc., XLVI, Pl. II, fig. 21), antennae porrect, the second joint short, triangular, the third joint short-oblong, a little longer than broad. First vein setulose from where the second and third veins separate from it, to the very tip. Hind cross-vein about half-way between small cross-vein and tip of fourth vein.

One frontal bristle on each side, two verticals, one post-vertical. Two ocellars. One humeral, two notopleurals, one pre-sutural, two supra-alars, one interalar, two postsuturals, one propleural and three sternopleural bristles on each side. Scutellum with four bristles. Legs without bristles except at extreme apex of tibiae.

Yellow, the abdomen brownish-piceous, strongly contrasting in color with the rest of the body, the last joint of the tarsi and all the hairs and bristles, including the arista, black. Wings yellowish hyaline, the color deepest anterior to the fourth vein, hind cross-vein clouded.

Type: A female taken by myself at Franklin, North Carolina, on May 22, 1923.

Near *N. simplex,* but abdomen is not concolorous with thorax.

Tetanocera vicina nanciae n. subsp. (Sciomyzidae).

Similar to *T. vicina,* but the wings are very much paler, and the fourth vein has no stumps proceeding from it, nor dark spots on it, the small and hind cross-veins alone being clouded.

In *vicina* the fourth vein has one or more small stumps proceeding from it, each of which is marked by a dark spot, and there are other dark spots along the vein without any stumps. In eight Raleigh specimens, including both sexes, there is always present a single stump projecting downward from the fourth vein between the two cross-veins, sometimes there are two, and sometimes also another projecting upward in the same region or one projecting backward beyond the hind cross-vein or one or two before the small cross-vein, while in one the hind cross-vein bears a stump. These stumps are mentioned in Loew's description of *plumosa (=vicina),* and are figured by Cresson in his figure of the wing of *vicina* (Trans. Amer. Ent. Soc., XLVI, Pl. 1, fig. 7).

Type: A male, Bryson City, North Carolina, May 24, 1923; *paratypes,* two males, same date and locality, and one male, Franklin, North Carolina, May 22, 1923, all taken by myself.

Odontomyia annamariae n. sp. (Stratiomyidae).

♀.—Length about 10 mm. Abdomen about as broad as long, measuring about 5 mm. each way. Antennae short, about as long as head or a little longer, first joint about twice second, third about as long as first two combined, composed of five segments, the last two tapering to the blunt, rounded apex. Third vein not forked. Four posterior veins, the anterior a little weaker than the others.

Head with the following pale yellow: whole posterior orbits, anterior orbits to a little above antennae, there sending a bar inward across the front which does not meet its fellow, cheeks, an irregular bar nearly separated into three triangular spots below ocelli, and an irregular V-shaped spot on each side of the face, the V opening downwards, and the following black: a narrow bar from eye to eye across vertex and including ocelli, a similar bar also from eye to eye, across front and connected in middle with black of face, remainder of front and face except as above noted. First antennal joint yellow on basal half, rest of antennae dark.

Thorax wholly blackish above, except a yellow band extending forward on sides from scutellum half-way to suture. Scutellum wholly yellow with two short spines near apex, pleurae largely yellow, pectus dark.

Abdomen blackish, with following pale yellow, linear anterior edge of segment 1, large triangular space on each side of 2, extending from base to apex on sides, and from side to side on posterior edge, thus enclosing a large subtriangular black space which occupies most of the segment at the base and extends nearly to the apex barely reaching it in the middle, a narrow line extending from the sides along the posterior margin of 3 about one-fourth of the way to the middle, a short spur at the posterior angle of 4, and the entire lateral margins of 3, 4 and 5 continuing a little more broadly round the apex of 5. Venter with segments 1 and 2 wholly yellow, 3 yellow in middle, 4 and 5 wholly dark.

Legs with the coxae and femora, except extreme apex of latter, black, extreme apex of all femora yellow, front and middle tibiae with apical fourth black, apical half of hind tibiae black, basal portions of all tibiae yellow, first two joints of tarsi and often part of third, also yellow, rest dusky.

Wings hyaline, a little clouded in the basal cells, and yellowish on the basal half in the costal; veins yellowish, darker near the discal cell.

The abdomen is shorter and broader than in any other member of the genus known to me, and it also differs from all I know in the color pattern of the abdomen.

Type: A female taken on the flowers of *Viburnum prunifolium*, April 11, 1923, by myself.

Eulonchus marialiciae n. sp. (Cyrtidae).

General color dark bluish, but the thorax mostly metallic green above; legs, except the dark coxae, light yellow, very slightly infuscated at the tips of the tarsi. Pile yellowish brown, except on the abdomen, where it is darker and brown.

Eyes hairy, narrowly separated both above and below the antennae. Antennae dark brown with the third joint long, flattened and gradually widening from the base nearly to the apex, rounding off at the apex from the upper to the lower margin. Proboscis straight, about half as long as in Cole's figure of *sapphirinus*, reaching nearly to base of hind coxae. Ocelli three on the usual raised tubercle.

Wings hyaline, the veins dark, second submarginal cell petiolate, the petiole twice as long as in *sapphirinus*, the marginal cell broadly open on the wing margin, the fourth posterior cell is not petiolate at base, but is separated from the second basal by a cross-vein; anal cell closed a little distance from the posterior margin of the wing: the second submarginal cell closed at base not by a transverse cross-vein, but by a thickening and short coalescence of the veins forming its anterior and posterior margins. Each of the tibiae with a short apical spur.

Type: One male, collected on Andrews Bald Mt., Swain County, North Carolina, on June 23, 1923, by Mr. J. C. Crawford.

This species runs in Cole's key to *E. sapphirinus* from California, but is distinguished by the much shorter proboscis, and by the details of venation mentioned above..

The unique types of the species described in this paper will be retained, at least for the present, in the entomological collection of the North Carolina Department of Agriculture, the types of the others will be deposited in the U. S. National Museum.

Predatorial Capacity (Odonata).

At Mud Lake, East Fort Leavenworth, Missouri, July 29, 1919, I captured a specimen of *Sympetrum corruptum* Hagen that was feeding upon another dragonfly *Pachydiplax longipennis* Burmeister, which was fully its equal in size in every respect. These specimens were determined by Dr. C. H. Kennedy.

W. L. McAtee, U. S. Biological Survey, Washington, D. C.